CIRM Stem Cell Biology Training Program

Grant Award Details

CIRM Stem Cell Biology Training Program

Grant Type: Research Training II

Grant Number: TG2-01161

Project Objective: Programmatic objective to provide appropriate enriching environment to the trainees

Investigator:

Name:	Robert Maxson
Institution:	University of Southern California
Type:	PI

Award Value: $5,827,817

Status: Closed

Progress Reports

Reporting Period: Year 3

View Report

Reporting Period: Year 4

View Report

Reporting Period: Year 5

View Report

Reporting Period: Year 6+NCE

View Report

Grant Application Details

Application Title: CIRM Stem Cell Biology Training Program

Public Abstract: This is a proposal to renew funding for the host institution's Type I Comprehensive Training Program in Stem Cell Biology. Since funding was first applied for in the summer of 2005, stem cell research at the host institution has undergone a major transformation: a center for regenerative medicine and stem cell research was established, and a world class stem cell biologist was recruited to be its director. Seven new faculty, representing a wide spectrum of stem cell-related disciplines, have been recruited as members of the Center. Groundbreaking for construction of a CIRM Stem Cell Facility took place in early [REDACTED] 2008. This initiative was launched with a multi-million dollar gift from a private foundation, and was recently matched with a Major Facilities Award from CIRM. Also with CIRM funding, the host institution has developed a Training Program in Stem Cell Biology which has thus far supported 24 individuals. Key features of this program are a flagship course in stem cell biology, co-taught with two neighboring institutions, as well as courses in stem cell ethics, developmental biology and a practical course in the culture of human ES cells. A yearly retreat was instituted and created a website created, which will soon be the principal mode of recruitment. A major benefit of our stem cell training program has been the promotion of interactions among stem cell biologists, developmental biologists and clinical scientists. The breadth of the program, in terms of the number of faculty and wide range of their expertise in stem cell biology, will provide trainees with many choices of mentor, and it will also make for training that is strongly interdisciplinary. The host institution seeks to continue and improve what is believed to be already an excellent training program in stem cell biology. Funding for 6 predoctoral fellows, 8 postdoctoral fellows, and 2 clinical fellows (a total of 16 slots) is requested. These individuals will be supported for two years, during which they will conduct research with one (or more) of 39 potential mentors. They will take courses in stem cell biology, stem cell ethics, as well as selected optional courses, including developmental biology. They will attend and present their work in the weekly combined stem cell biology/developmental biology research forum and will attend a yearly retreat. Finally, they will benefit from the extensive informal interactions among the students and faculty in stem cell biology. The host institution is also extremely pleased to partner with several nearby institutions for CIRM's "Bridges to Stem Cell Research" program. This program would enable these institutions to place trainees in stem cell labs at the host institution. We note that these collaborative efforts will broaden the influence of our training program substantially and make efficient use of state stem cell resources

Statement of Benefit to California:	This is a proposal to renew funding for the host institution's Type I Comprehensive Training Program in Stem Cell Biology. Since funding was first applied for in the summer of 2005, stem cell research at the host institution has undergone a major transformation: a center for regenerative medicine and stem cell research was established, and groundbreaking for construction of a CIRM Stem Cell Facility took place in [REDACTED] 2008. The recent establishment of [REDACTED] an innovative agreement among 6 research institutions in [REDACTED] (including the host institution) allows members to share training programs, scientific core facilities and expertise, thus achieving highly efficient use of state funding. In mid-2006, the host institution instituted a Training Program in Stem Cell Biology (which has thus far supported 24 individuals), and seeks to continue and to improve what is believed to be already an excellent training program in stem cell biology. This program will bring great educational, scientific and economic benefit to Californians. Key features of this program are a flagship course in stem cell biology, co-taught with two neighboring institutions, as well as courses in stem cell ethics, developmental biology and a practical course in the culture of human ES cells. A major benefit of our stem cell training program has been the promotion of interactions among stem cell biologists, developmental biologists and clinical scientists. The breadth of the program, in terms of the number of faculty and wide range of their expertise in stem cell biology, will make for training that is strongly interdisciplinary. The structure of the courses, capitalizing on the rich distance learning capabilities of the host institution to produce a highly interactive, yet flexible, course accommodates the diversity of pre- and post-doctoral students as well as clinical fellows. An added benefit is this course structure will allow for enrollment by interested parties statewide and nationally. Further, the agreement between the Institutions to contribute exceptional didactic training to the program regardless of funding by this mechanism truly demonstrates the commitment of each to training in this field. The host institution is also extremely pleased to partner with several nearby institutions for CIRM's "Bridges to Stem Cell Research" program. This program would enable these institutions to place trainees in stem cell labs at the host institution. We note that these collaborative efforts will broaden the influence of our training program substantially and make efficient use of state stem cell resources.